

PATENT COOPERATION TREATY

PCT/EP03/00317
Recd PCT/PTO 30 JUN 2004

From the INTERNATIONAL BUREAU

PCT

NOTICE INFORMING THE APPLICANT OF THE COMMUNICATION OF THE INTERNATIONAL APPLICATION TO THE DESIGNATED OFFICES

(PCT Rule 47.1(c), first sentence)

Date of mailing(day/month/year)
24 July 2003 (24.07.03)

To:

ZF FRIEDRICHSHAFEN AG
88038 Friedrichshafen
ALLEMAGNETS Eingang
04. Aug. 2003
*R*Applicant's or agent's file reference
8143 WO P GEB-FRI**IMPORTANT NOTICE**International application No.
PCT/EP03/00317International filing date(day/month/year)
15 January 2003 (15.01.03)Priority date(day/month/year)
18 January 2002 (18.01.02)

Applicant

ZF FRIEDRICHSHAFEN AG

1. Notice is hereby given that the International Bureau has communicated, as provided in Article 20, the international application to the following designated Offices on the date indicated above as the date of mailing of this notice:

EP, US

In accordance with Rule 47.1(c), third sentence, those Offices will accept the present notice as conclusive evidence that the communication of the international application has duly taken place on the date of mailing indicated above and no copy of the international application is required to be furnished by the applicant to the designated Office(s).

2. The following designated Offices have waived the requirement for such a communication at this time:

JP

The communication will be made to those Offices only upon their request. Furthermore, those Offices do not require the applicant to furnish a copy of the international application (Rule 49.1(a-bis)).

3. Enclosed with this notice is a copy of the international application as published by the International Bureau on 24 July 2003 (24.07.03) under No. 03/060353

4. TIME LIMITS for filing a demand for international preliminary examination and for entry into the national phase

The applicable time limit for entering the national phase will, subject to what is said in the following paragraph, be 30 MONTHS from the priority date, not only in respect of any elected Office if a demand for international preliminary examination is filed before the expiration of 19 months from the priority date, but also in respect of any designated Office, in the absence of filing of such demand, where Article 22(1) as modified with effect from 1 April 2002 applies in respect of that designated Office. For further details, see *PCT Gazette* No. 44/2001 of 1 November 2001, pages 19926, 19932 and 19934, as well as the *PCT Newsletter*, October and November 2001 and February 2002 issues.

In practice, time limits other than the 30-month time limit will continue to apply, for various periods of time, in respect of certain designated or elected Offices. For regular updates on the applicable time limits (20, 21, 30 or 31 months, or other time limit), Office by Office, refer to the *PCT Gazette*, the *PCT Newsletter* and the *PCT Applicant's Guide*, Volume II, National Chapters, all available from WIPO's Internet site, at <http://www.wipo.int/pct/en/index.html>.

For filing a demand for international preliminary examination, see the *PCT Applicant's Guide*, Volume I/A, Chapter IX. Only an applicant who is a national or resident of a PCT Contracting State which is bound by Chapter II has the right to file a demand for international preliminary examination (at present, all PCT Contracting States are bound by Chapter II).

It is the applicant's sole responsibility to monitor all these time limits.

The International Bureau of WIPO
34, chemin des Colombettes
1211 Geneva 20, Switzerland

Authorized officer

Judith Zahra

Facsimile No.(41-22) 740.14.35

Telephone No.(41-22) 338.91.11

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/EP2003/000317

I. Basis of the report

1. With regard to the elements of the international application:*

 the international application as originally filed the description:

pages _____, 1-4, as originally filed

pages _____, filed with the demand

pages _____, filed with the letter of _____

 the claims:

pages _____, as originally filed

pages _____, as amended (together with any statement under Article 19)

pages _____, filed with the demand

pages _____, filed with the letter of 18 September 2003 (18.09.2003)

 the drawings:

pages _____, as originally filed

pages _____, filed with the demand

pages _____, filed with the letter of _____

 the sequence listing part of the description:

pages _____, as originally filed

pages _____, filed with the demand

pages _____, filed with the letter of _____

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item. These elements were available or furnished to this Authority in the following language _____ which is:

 the language of a translation furnished for the purposes of international search (under Rule 23.1(b)). the language of publication of the international application (under Rule 48.3(b)). the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

 contained in the international application in written form. filed together with the international application in computer readable form. furnished subsequently to this Authority in written form. furnished subsequently to this Authority in computer readable form. The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished. The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.4. The amendments have resulted in the cancellation of: the description, pages _____ the claims, Nos. _____ the drawings, sheets/fig _____5. This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PCT/EP 03/00317

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1 - 4	YES
	Claims		NO
Inventive step (IS)	Claims	1 - 4	YES
	Claims		NO
Industrial applicability (IA)	Claims	1 - 4	YES
	Claims		NO

2. Citations and explanations

1. Relevant prior art:

- D1: DE 197 58 240 A (SAMSUNG HEAVY IND) 3 December 1998 (1998-12-03)
- D2: US-A-3 424 029 (HORSCH JOACHIM ET AL) 28 January 1969 (1969-01-28)
- D3: US-A-4 776 751 (SAELE ARVID H) 11 October 1988 (1988-10-11)
- D4: US-A-3 187 497 (GRANRYD THORVALD G) 8 June 1965 (1965-06-08)
- D5: DE 26 13 300 A (KOMATSU MFG CO LTD) 28 October 1976 (1976-10-28).

2. Claim 1 relates to a

control system of a drive train for a wheel loader
 - having a pressure-actuated brake and a transmission with a variable transmission ratio, wherein the transmission is operated by a torque converter and comprises at least two forward and/or reverse gears, each of which is actuated by a power-shift clutch, and a power take-off,
 - wherein if the power output from the transmission to the power take-off exceeds a defined

value, the pressure of the manually selected power-shift clutch is reduced to a residual level for the forward or reverse gear,
characterized in that

- when the power output from the transmission to the power take-off exceeds a defined value, the transmission ratio is modified in such a way that the force that drives the wheel loader is kept as constant as possible.

3. An arrangement according to the preamble of claim 1 is known from document D2, wherein the clutch is operated with controlled slip while the wheel loader is running. The object of the invention is to provide a control system which during work next to a wall delivers the wheels with sufficient propulsive power. This is to be achieved by the measures specified in the characterizing part of claim 1.
4. Independent claims 2 and 3 concern alternatives to the solution set out in claim 1.
5. In light of the available prior art, the restricted control system according to claims 1 to 3 for use specifically with wheel loaders is considered to involve the necessary inventive step.
6. The development according to dependent claim 4 likewise satisfies the PCT requirements.
7. Industrial applicability is clearly established in the field of wheel loaders.
8. The introductory part of the description is not consistent with the now valid set of claims.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/EP 03/00317

Furthermore, the introductory part of the description also fails to cite or acknowledge the relevant and generic prior art.